Positive Deviance to increase adherence for physical activity among Adolescents

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Introduction

Positive Deviance (PD):

The term Deviance has a negative connotation to it as it means something which is not in accordance with the norms. But when anyone chooses a different way of doing things than the majority around him and that way results in good outcomes; then it is called Positive Deviance. Thus, Positive Deviance is a phenomenon that explains that people can be deviated from the general population but in a positive way. It has been observed that there are people who employ uncommon ways and practices to deal with different problems. Positive deviance is a solution- focused approach, in which some people show more adaptability. Due to this, they become successful despite the fact that they do not have extra resources to help them. Such individuals are termed as 'Positive Deviants'. Although few in no. but they present an evolved method to tackle any specific situation. This phenomenon was first observed in a research based on nutrition practices among children in Vietnam in the 1970s.Besides poverty, many families were able to fulfill the nutritional requirements of their children by adopting the new and different but adequate & sustainable plan of action.

"Positive deviance is inductive and qualitative in nature because it uses the experiences of individuals who have better health outcomes than the majority, and analyzes their behaviors to determine what practices they used to promote successful outcomes" (Timmerman, 2007).

Paradigms of Positive Deviance:

It is applicable to issues related to behavior change and requires attainment of relevant practices. The inherent ideas behind this approach are-

1. People and groups have solutions as the solution lies in the layers of problem itself.
2. This approach recognizes the concept of collective Intelligence; which is distributed throughout the group & can be applied whenever required.
3. The solutions are believed to be feasible as well as sustainable so as to have the effectivity.

4. PD Approach believes that most of people know about the probable solution to a problem but very few act upon that solution. Being an action oriented approach, it emphasizes the important of action than mere perception.

Steps in Positive Deviance:

1. **Underline the problem-** The first step is to identify the problem that is to be studied.
2. **Search for positive deviants-** The next step is to look for those individuals who are able to tackle the problem by approaching it differently.
3. **Understanding the difference-** The researcher needs to understand the different practices that are being followed by the positive deviants but are missing in other people.
4. **Designing a program & disseminating the information-** At this stage, researcher can prepare a plan which is feasible and sustainable so that group members can follow it and also develop the ideas to deal with the problem.
5. **Scaling the outcomes-** After the implementation of predesigned plan, the obtained results can be analyzed to observe the effect of information exchange.

A research titled Using Positive Deviance for Determining Successful Weight-Control Practices (2013),by Heather L. Stuckey, Jarol Boan, Jennifer L. Kraschnewski, Michelle Miller-Day, Erik B. ,Lehman, and Christopher N. Sciamanna ; also indicated the role of certain practices used by positive deviants in controlling weight ,when non positive deviants used them.

Applying Positive Deviance for Improving Compliance to Adolescent Anemia Control Program in Tribal Communities of India conducted by V Sethi, M. Sternin, D Sharma ,A Bhanot , S. Mebrahtu " used PD to improve compliance to adolescent anemia control program in Jharkhand, India, where anemia prevalence in adolescent girls is 70%, and program compliance is low."

In another study by Vaani Sethi et. al, titled Encouraging Appropriate Infant Feeding Practices in Slums: A Positive Deviance Approach (2003) highlighted the unusual practices used by mothers to raise healthy infants despite utter poverty in slums.

Positive Deviance Approach and Supplementary Nutrition under ICDS Scheme on Improvement of Nutritional Status of 2–6 year Children in Rural Bangalore conducted by Imran M, Subramanian M,

Subrahmanyam G, Seeri J, Pradeep C, Jayan M also proved the efficacy of positive deviance approach for improving nutritional standards in rural anganwadi centers in Banglore.

The Positive Deviance Approach to Designing and Implementing Health Communication Interventions conducted by Arvind Singhal was designed to motivate people of slums in Delhi for maintaining small family size (Singhal, 2013; Singhal & Dura, 2009; 2012; Singhal, Buscell, & Lindberg, 2010). The individuals who were having small family size acted as role models .

Study on Adherence to physical activity among female college students (2016)

The study used Instagram comments as motivating factor and a home exercise program as a motivational stimulus for improving adherence to physical activity.

Physical Fitness & Exercise during Covid-19 pandemic: A Qualitative enquiry (2019)

This paper explored the unique experience of fitness freaks during lockdown & ways of doing alternate exercises at home. It also used Music as a tool.

Variables to be studied-

1. **BMI-** It refers to Body Mass Index. It is calculated by dividing the person's weight (kg) with the square of height (Metres). BMI is the indicator of height to weight ratio. Higher BMI means high amount of fat in the body that can be harmful. It has been observed that adolescents with higher BMI are at risk of having distorted body image.

   As per the study conducted by Vaishali R**.** Deshmukh & Aditi Kulkarni (2017), on Body Image and its relation with Body Mass Index among Indian Adolescents, there is " a significant difference in perceptions and behaviors related to appearance, fitness, health, body areas and weight in various body mass index and socioeconomic categories. Girls articulated significantly higher body dissatisfaction than boys. Hence, Adolescents have major concerns regarding body image. "

   In another study on "Comparison of body image perception and the actual BMI and correlation with self-esteem and mental health (2018)" by Sudhir Prabhu**,** Delma D'Cunha in Karnataka, the results revealed that" Both males and females were found to be equally concerned about their appearance and body shape (51.46% and 48.53%, respectively). Among these, we found that the middle (14–16 years) and late teens (17–19 years) had higher scores of body image dissatisfaction compared to early teens (10–13 years). Not only overweight but also even underweight adolescents had higher body shape dissatisfaction with 64.72% perceiving their

body shape wrongly. Mental health and self-esteem scores were shown to have a positive correlation with body dissatisfaction indicating that those who were dissatisfied with their body were more likely to have lower self-esteem ($p = 0.036$)."

2. **Locus of Control- "**Rotter (1966) defines locus of control as the degree to which a person perceives an outcome as being contingent on their own actions or those of external forces, existing along a continuum from a more internalized orientation to a more externalized orientation."

3. **Self-Efficacy-** The concept of Self- Efficacy was given by the psychologist Albert Bandura. It refers to "an individual's belief in their capacity to execute behaviors necessary to produce specific performance attainments." People who have higher self-efficacy are more efficient in taking care of their own health.

   A study conducted by Shevaun D. Neupert, Margie E. Lachman, and Stacey B. Whitbourne (2009),on Exercise self- efficacy and how Control Beliefs predict Exercise Behavior after an Exercise Intervention for Older Adults, concluded that people who were high on self- efficacy were also good at exercise behavior.

   The Role of Social Self-Efficacy on Physical Activity: A Cross-Cultural Comparision Serdar Alemdag(2018), published in Journal of Education and Training Studies, indicated that " research on self-efficacy and physical activity has remarkably grown in recent years (Martin & Kulinna, 2005; Motl, 2007; Gencay, 2009; Temple, 2009; Iskender & Akin, 2010; Luszczynska et al., 2011; Cowan et al., 2012; Çetinkalp, 2012; Vurgun, 2015; XiaoXia, et al., 2016; Alemdag, 2018). Participation in physical activity brings people together and provides personal identity, social identity, and a sense of group membership; it also facilitates communication between people and communities without race, gender, culture and age discrimination (Yıldıran & Yetim, 1996). Participation in physical activity has positive effects on self-respect (Chen et al., 2012; Joseph et al., 2014; Yiğitler, 2014), psychological well-being (Edwards, 2006; Garcia et al., 2012; Verner et al., 2017; Wiese et al., 2018), physical and mental health (Cho & Cho, 2011; Park et al., 2017; Ostovarfar et al., 2018; Way et al., 2018); however, the number of people who do not participate in physical activity is quite high worldwide (World Health Organization, 2004)."

4. **Defense Mechanisms-** Defense mechanisms are thought to mediate between unacceptable impulses or affects and internal or external prohibitions (Perry & Cooper, 1986), thus preventing the painful emotional consequence of the discharge of such impulses or affects (Schafer, 1954). Defense mechanisms are thought to be employed unconsciously, and are believed to adhere to patterns such that an individual consistently uses particular defenses. A similar study on overweight, underweight and normal adolescents was conducted by Mrinal & Singhal using the same tool for testing use of different defense mechanisms. Underweight subjects were found using defenses those externalize the conflict i.e. TAO & PRO significantly more in comparison to normal & overweight subjects. Overweight subjects had tendency to Principalization and Reversal.

5. **Achievement Motivation-** Achievement motivation typically refers to the level of one's motivation to engage in achievement. Achievement motivation may be defined as the energization and direction of competence-relevant behavior. It is based on reaching success and achieving all of our aspirations in life.

6. **Body Image -** Body image is the mental representation an individual creates of themselves, but it may or may not bear any relation to how one actually appears. Body image is subject to all kinds of distortions from the attitudes of one's parents, other early experiences, internal elements like emotions or moods, and other factors. The severe form of poor body image is body dysmorphic disorder, where dissatisfaction over a slight or undetectable defect in appearance becomes a severe obsession.

RATIONALE OF THE STUDY

Adolescent is a period of development not only physical but psychological too. The transition from childhood into young adulthood brings change in cultural and social expectations. It is considered as a " period of great stress, strain, storm and strife" as rightly suggested by G. Stanley Hall. So, it can be described as a vital stage of development. Some adolescents are able to utilize the resources present around them in a better way, while others are not. This difference is not the result of any intellectual giftedness. It is the ability to solve problems in a different way. This phenomenon has

been observed in many areas. The present study aims to study it with reference to adherence to physical activity among adolescents. Due to increasing awareness about the relationship of physical health with mental health, it has become inevitable to search for role models amongst the youth who can show the benefits of maintaining a good physical health.

1.It will be helpful in understanding and resolving the issues related to physical & mental health of adolescents.

2.Gender differences in PDs have not been studied.

3.Positive impacts of physical activity on physical as well as mental health of adolescents have not been studied in India.

4.Study on potential indicators of adherence to physical activity have not been carried out at length.

Hence, a research can be conducted on indicators of positive deviance to increase physical activity among adolescents. But this assumption needs to be probed into. Hence, there is a need to study the level of physical activity, locus of control, self-efficacy, Achievement Motivation and Body Image perception in the adolescents of age range of 13 to 17 years.

Objective:

- To find the no. of Positive Deviants (with reference to physical activity) in a sample.
- To find out the Locus of control in potential Positive Deviants and Non Positive Deviants.
- To find out the difference in Self-efficacy among potential Positive Deviants & non-Positive Deviants.
- To find out the relationship of Achievement Motivation and Positive Deviance.
- To find out the use of defense mechanisms in Positive Deviants & non- Positive Deviants.
- To find out gender differences in performance of physical activities.

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- To find out the differences in negative self-appraisal of body image among Positive Deviants & Non Positive Deviants.

- To find out the factors leading to Positive Deviance in adolescents.

- To Disseminate the newly identified practices among Non PDs.

Hypothesis:

- Positive deviants in adolescents will continue with their physical activity despite all odds.
- Positive Deviants will have Internal locus of control.
- Positive Deviants will have higher self- efficacy.
- The Positive Deviants would be having high achievement motivation.
- There would be differences in use of defense mechanisms among Positive Deviants & Non-Positive Deviants.
- The no. of Positive Deviants would be higher in adolescent boys than adolescent girls.
- Non Positive Deviants would have negative appraisal of body image as compared to PDs.
- Probable factors leading to positive deviance in some cases would be – Higher Achievement motivation & higher self -efficacy.
- Intervention program based on the findings drawn from the sample, would lead to changes in Non PDs.

METHODOLOGY

Design:

To accomplish the desired objective, a correlational multi-group design would be used in present investigation.

Sample:

The sample will consist 500 adolescents out of which 250 would be males and 250 would be females. Purposive sampling will be used in the present study. The age range of the sample varies from 13-17 years.

Inclusion criteria:

- Adolescents having sound and mental & physical health would be selected.
- Adolescents in the age range of 13-17 years would be selected.

- Only those adolescents who reside in the urban areas would be selected.
- The adolescents from upper middle class family would be selected.

Exclusion criteria:

- Adolescents having mental disorders or physical disability would be excluded.
- Adolescents who belong to below and above the age range 13-17 years would be excluded.
- Adolescents who belong to rural areas would be excluded.

Tool used:

1. **There will be two phases of this research-**

2. **In Preliminary Screening, well-structured and pre-tested questionnaires will be used for selecting Positive Deviants and Non Positive Deviants in the sample. Questionnaires will include-**

   1.Physical Activity Questionnaire for Adolescents (PAQ-A) by Kowalski , Kent C. ,Crocker, P.R.,& Kowalski N.P.(1997)-

   - This is a five-point scale & it contains 8 items. The 9^{th} item an explanatory question and it is not included for scoring.
   - It measures general level of physical activity in adolescents.

   2.BMI index- is the indicator of ratio of weight to height. It is calculated by person's weight in kilograms divided by the square of height in meters. A high BMI can indicate high body fatness.

   3.Socio-economic status scale by Gyanendra P. Srivastava(1992)-

   - It includes 8 items.
   - It can be used for children of 13 years and above,living in urban area.
   - It seeks information about the following components within the family:

i. Education

ii. Occupation

iii. Income

iv. Cultural Standards

v. Social Participation.

4.Locus of control scale by Levenson (1981)-

- This is a five-point scale & it contains 24 items.
- It measures two dimensions of Locus of Control-
- External locus of control & Internal locus of control

In Second stage, well-structured and pre-tested questionnaires will be used for understanding the difference in behaviours of Positive Deviants and Non Positive Deviants. Questionnaires will include-

1. **Achievement motivation scale by Deo-Mohan(1985)-**
    a. The scale consists of 50 items.
    b. It measures attitude towards achievement in various activities.

2.Defense Mechanism Inventory (Male & Female) by Dr. N.R. Mrinal , Dr. Uma Singhal-

- It measures five defense mechanisms used by the subject under various circumstances.
- The five defense mechanism are:
    i. Turning against object (TAO)
    ii. Projection (PRO)
    iii. Principalization (PRN)
    iv. Turning against self (TAS)
    v. Reversal (REV)

3. **MPAQ (MDRF Physical activity questionnaire) developed by Madras Diabetes**

Research Foundation (2011)-

- MPAQ measures physical activity in four areas- work, general, commutation & leisure time activities.
- It includes 63 items in total.

4. **General Self-Efficacy Scale by Schwarzer, R. & Jerusalem, M (1995)–**

- This scale is a self-report measure.
- It includes 10 items in total.

5. **The Adolescent Body Image Satisfaction Scale (ABISS) by James E. Leone, Elizabeth M. Mullin, Suanne S. Maurer-Starks, and Michael J. Rovito (2014)-**

- This scale is a self-report measure.
- It includes 16 items in total.
- It measures three dimensions of body image-
- BC-Body competence BI-Body Inadequacy IC-Internal conflict

Procedure:

The primary step in the present study would be to impart the knowledge about the purpose of this study among the participants so that a good rapport could be established with them. To meet the objective of the present study participants would be contacted individually or in group. Confidentiality of the information would be assured. After establishing the rapport, instructions regarding each scale would be provided separately and required information would be collected from individual participants and scoring would be done according to manuals.

Statistical Analysis:

The appropriate statistical tools would be used.

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